

## **AMENDMENTS TO THE SPECIFICATION**

**On page 1, line 1, please delete “DESCRIPTION.”**

**Please delete the heading on page 1, line 5, and replace therefor:**

**--BACKGROUND OF THE INVENTION--.**

**Please insert on page 1, between the heading “BACKGROUND OF THE INVENTION” and line 6, the following heading:**

**--1. Field of the Invention--.**

**Please delete the heading on page 1, line 11, and replace therefor:**

**--2. Description of the Related Art--.**

**Please delete the heading on page 3, line 17, and replace therefor:**

**--BRIEF SUMMARY OF THE INVENTION--.**

**Please amend the paragraph beginning on page 3, line 24 and ending on page 4, line 9, as follows:**

The optical transmitter section transmits an optical packet, on which an information signal and an address signal corresponding to a transmission destination for the information signal are superposed by different modulation methods. The optical transmission section propagates an optical packet transmitted from the optical transmitter section. The router section receives the optical packet via the optical transmission section, and ~~switching~~switches a transmission path for the optical packet based on the address signal which is extracted from the optical packet. Preferably, a modulation speed for the address signal and a modulation speed for the information signal are different.

**Please delete the heading on page 10, line 21, and replace therefor:**

**--DETAILED DESCRIPTION OF THE INVENTION--.**

**Please amend the paragraph beginning on page 16, line 3 and ending at line 9, as follows:**

To the second splitter section 109, an information signal "10011100" is input with an amplitude 2a (waveform (c)). An information signal whose phase has been inverted by the phase inversion section 110 is shown as waveform (d). To the first splitter section 104, an address signal which has been converted from the NRZ code "11010010" to an NRZ-I code "10011100" is input with an amplitude 2b (waveform (b)).

**Please amend the paragraph beginning on page 27, line 10 and ending at line 15, as follows:**

The first to fifth ~~embodiment~~embodiments illustrate examples where an optical signal which is output from a light source is subjected to a phase modulation using an address signal and an intensity modulation using an information signal. Conversely, the optical signal may be subjected to an intensity modulation using an address signal and a phase modulation using an information signal.